[Metric-SI]
3FNE-CO 01-597
May 1, 2001

PURCHASE DESCRIPTION FOR OCCASIONAL TABLES, WOOD OFFICE, TRANSITIONAL STYLE

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers wood office style occasional tables designed to be used with executive wood office furniture of various styles. All measurements are in SI (metric) units.

1.2 Classification.

1.2.1 Types, styles, classes and finishes. The occasional tables covered by this purchase description shall be shipped fully assembled and shall be of the following types, styles, classes and finishes (see 6.1). Dimensions are overall and in millimeters (mm).

Type I End table, Figure 1
W 518 mm x H 610 mm x D 584 mm

Type II Corner table, Figure 2
W 610 mm x H 610 mm x D 584 mm

Type III Coffee table, Figure 3
W 762 mm x H 518 mm x D 457 mm

Type IV Coffee table, Figure 4
W 1067 mm x H 518 mm x D 457 mm

Type V Sofa table, Figure 5
W 1219 mm x H 762 mm x D 457 mm

The above tables are available in the following finishes.

Finish 1 Independence Walnut
Finish 2 Federal Mahogany
Finish 3 Federal Oak

2. APPLICABLE DOCUMENTS

2.1 Specifications and standards. The following documents of the issues in effect on the date of invitation for bids, or request for proposal, form a part of this specification to the extent specified herein:

Handbook:

U.S. Department of Agriculture Forest Service, Forest Products Laboratory:
FPL-GTR-113 - – Wood Handbook – Wood as an Engineering Material

(Copies are available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, or may be viewed or downloaded at http://www.fpl.fs.fed.us.)

2.2 Commercial Standards and Publications.

American National Standards Institute Publications:

ANSI/ASQC Z1.4 - Sampling Procedures and Tables for Inspection by Attributes
ANSI/HPVA HP-1-1994 - Standard for Hardwood and Decorative Plywood

(ANSI standards are available from American National Standards Institute, Inc. 1430 Broadway, New York, NY 10018.)

American Society for Testing and Materials Standards:

A 208.2-1999 - Particleboard.
D 905 - Standard Method of Test for Strength Properties of Adhesives in Shear by Compression Loading.
D 1211 - Temperature Change Resistance of Clear Nitrocellulose Lacquer Films Applied to Wood.
D 1308 - Effect of Household Chemicals on Clear and Pigmented Organic Finishes.
D 2091 - Print Resistance of Lacquers
D 2199 - Measurement of Plasticizer Migration From Vinyl Fabrics to Lacquers
D 2256 - Tensile Properties of Yarns by the Single-Strand Method
D 3359 - Measuring Adhesion by Tape Test

(ASTM Standards are available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

3. REQUIREMENTS

3.1 Materials. The following paragraphs describe minimum requirements for materials used in construction and assembly.

Regulatory requirements. The offerer/contractor is encouraged to use recovered materials in accordance with Public Law 94-580, as amended, to the maximum extent practicable.

3.1.1 Wood.

3.1.1.1 Varieties. Exposed parts shall be cherry or walnut for Independence Walnut and Federal Mahogany finishes and oak for Federal Oak finish. Only one exposed wood species shall be permitted on any one item. The wood used in the construction of the unexposed components shall meet the following components at 12% moisture content. See Wood Handbook, FPL-GTR-113.

Modulus of Rupture – 68,000 kilopascals (kPa) minimum
Modulus of Elasticity – 9,500 megapascals (Mpa) minimum.

3.1.1.2 Characteristics. The solid wood used for exposed parts shall be bright, well sanded, and free from brashness, discoloration, worm holes, honeycomb, splits, and shake. The wood used for unexposed parts may contain small defects, such as pin knots, sapwood, or mineral streaks provided the strength of the part is not affected.

3.1.1.3 Plywood. All plywood shall be minimum 9 ply, minimum of 15 mm thick, and constructed in accordance with the requirements of ANSI/HPVA HP-1 1994 and as specified herein. Minimum Type II bond required. Crossbanding shall be not less than grade 2.

3.1.1.4 Medium density fiberboard. All medium density fiberboard shall comply with the requirements of ANSI A208.2-1999.

3.1.1.5 Wood seasoning. All wood shall be thoroughly air-seasoned and then uniformly kiln-dried without honeycomb or case hardening to a moisture content of 5 to 7 percent. At the time of assembly, moisture content shall not exceed 7 percent. Kiln-dried parts shall be allowed to temper approximately 2 weeks in a sheltered area to equalize moisture before milling.

3.1.2 Edge bands. The edge bands on the occasional tables shall be the same species as the wood veneer (solid cherry, walnut, or oak).

3.1.3 Table tops. The table tops shall be cherry, walnut, or oak veneer with an MDF core.

3.1.4 Apron. The apron shall be made of solid cherry, walnut, or oak wood and shall be at least 27 mm thick.

3.1.5 Legs. The legs shall be made of solid cherry, walnut, or oak wood.

3.1.5 Dowels. Dowels shall be of beech, birch, hickory, or maple and have a maximum 8% moisture content at time of assembly. They shall be spirally or longitudinally grooved. Unless otherwise specified herein, dowels shall have a minimum diameter of 9 mm and the length shall be not less than 4 times the diameter.

3.1.6 Adhesive. Block shear strength: 19,300 kPa minimum. See test procedure paragraph 4.4.1.

3.2 Hardware.

3.2.1 Glides. Minimum 18 mm diameter. Flat beige plastic single prong glide. The glides on the sofa table shall be adjustable.

3.3 Construction. All items shall be glued, screwed and double doweled together (unless otherwise specified , See 6.2) and shall meet test requirements in 4.3. All exposed corners and edges shall be rounded to an approximate 3 mm radius. Corner blocks as wide as practicable shall be carefully fitted, and securely glued and screwed.

3.3.1 Tolerances. Overall width, depth, or height: $\pm$12 mm

- Dimensions of any wood part: $\pm$ 3 mm
- Angular measurements: $\pm$ 1 degree.

Exposed wood finish. Finish shall match as closely as possible the overall color of GSA Standard Sample FSS-L-01023 Federal Oak, FSS-L-01025 Federal Mahogany, or FSS-L-01026 Independence Walnut as required and be stained to equalize color. Semi-open pore finish with minimum two natural or synthetic top coats with adequate "build" is required. Final finish shall pass finish tests (4.4.2).

GSA Standard Samples are available from GSA-FSS-3FNEW-CO, Furniture Center, Engineering Division, Washington, DC 20406.

3.5 Identification marking. Each item shall be permanently and legibly marked with contrasting ink, on the underside of chair seat, with the specification number, national stock number, contract number, month and year of manufacture and manufacturer's name or trademark.

3.6 Workmanship. A high degree of craftsmanship shall be exercised in order to produce tables suitable for use in executive offices. The methods of construction, assembly, finishing and the appearance shall be in strict accordance with the requirements of this specification. All wood surfaces shall be finish sanded smooth and all corners and edges eased, thoroughly cleaned, and finished. The natural grain of the wood shall not be clouded by the finishing materials. Bleaching agents or materials shall not be used. The application of materials, drying time, sanding, cleaning, and rubbing shall be controlled to produce items with smooth, uniform exposed surfaces without blisters, pits, wrinkles, runs, tackiness or more than a trace of orange peel.

4. QUALITY ASSURANCE PROVISIONS

4.1 First article inspection and testing. The first article samples shall be inspected and tested as specified herein for all the requirements of this specification. The samples shall be manufactured in the same manner, using the same materials, equipment, processes, and procedures as used in regular production. All parts and materials, including packaging and packing, shall be obtained from the same source of supply as used in regular production. In addition, first article samples shall be compared to and shall match bid samples for style/design, workmanship, comfort, and finish (except color). Bid sample rejection points (if any) shall be corrected in the first article sample. Manufacturer shall maintain bid samples and first article samples as manufacturing standard samples until the last order is shipped, received and accepted by the ordering activity.

4.2. Production item inspection and testing. During production, items shall be inspected by the contractor in accordance with 4.3. No item shall be shipped unless it fully conforms with all contract requirements. Production items shall also comply with the manufacturing standard samples (4.1).

4.3 Inspection provisions.

4.3.1 Responsibility for inspection. Unless otherwise specified, the contractor is responsible for the performance of all inspection requirements and may use any commercial facilities (including the contractor's own facilities) suitable for the performance of the inspection requirements, unless disapproved by the Government. The Government reserves the right to perform any inspections deemed necessary to assure the item conforms to the specified requirements.

4.3.2 Visual and dimensional examination. Perform examination on a percent defective basis in accordance with ANSI/ASQC Z1.4 and the following sampling plan.

Inspection Level - II. Acceptable Quality Level (AQL) - 4.0

Inspect items for visual and dimensional requirements of this specification paying close attention to workmanship (3.6).

4.3.2.1 Overall examination. In addition to visual and dimensional examination, inspect each item at a viewing distance of 2 m for the following defects. Reject the item if one or more of the following defects is found.

Wood finish streaked or not uniform.

Piece visually off level.

Scratch or bruise marks on wood.

4.3.3 Packaging, packing, marking examination. Examine items for compliance with requirements stated in this document and the contract. Score areas of noncompliance with requirements as defects.

Inspection Level - S-4. Acceptable Quality Level (AQL) - 4.0.

4.4 Testing. Failure to comply with the following test requirements will be cause for rejection. Testing is required for first article inspection. See production item testing requirements in 4.2.

4.4.1 Test for adhesives.

Component	Characteristic	Requirement reference	Test Method
Adhesive	Block shear test	3.1.3	ASTM D 905

Rerun test if all three of the following criteria are met: the average shear strength of all samples is below 19,300 kPa; there is a 10 percent or greater difference between high and low specimen values, and at least one test specimen broke at more than 19,300 kPa.

Disregard a test specimen in computing the average if it breaks at less than 19 300 kPa; and it has 50 percent or more wood failure.

4.4.2 Finish tests and requirements. The following tests shall be performed on a sample panel finished in the same manner as units are finished in production. Perform all finish tests at first article inspection. All test panels shall be produced from finish materials currently being used in production. All samples tested shall meet the following test requirements.

- Stain resistance: Follow the test procedure in ASTM D-1308 using the following staining reagents.
  1. Black coffee------- one hour covered
  2. Mustard----------one hour covered
  3. Lipstick----------one hour covered
  4. Corn oil----------one hour covered
  5. Grape juice---------one hour covered
  6. Distilled water-----one hour covered
  7. Ethanol----------one hour covered

  Light polishing of the area with a soft cloth must remove any whitening or spotting that develops.

- Boiling water. Age panel 14 days. Pour 25 ml of boiling water on the leveled panel and allow to cool at room temperature. Dry the surface. After drying, there must be no graying or spotting.

- High temperature resistance. Follow the test procedure in 3.6 of NEMA LD-3 except use water heated to 100 degrees C (boiling) instead of bath wax heated to 185 degrees C. Allow water to cool to 95 degrees C before placing heating vessel on the test samples. Wipe samples with a dry soft cloth instead of naphtha and alcohol. There shall be no more than a “slight effect” on the samples after testing.

- Cold check. Age panel one week. Follow ASTM D 1211 test procedure. After exposure of 10 cycles, there shall be no checking or cracking. True film checking is one or more wavy or straight lines which cross the grain and do not appear related to grain structure. When a panel displays veneer checks, check running parallel to the grain, or glue line fracture, the panel shall be disregarded and another panel tested.

- Cold print. Follow ASTM D 2091 test procedure at 230 degrees C (+2 degrees C) for 18 hours using a 14kPA test pressure. After testing there shall be “no effect “ on the finish.

- Adhesion by Tape Test. Follow ASTM D 3359 test procedure using method B. After testing, finish shall have no more than a “3B” rating (up to 15% of the lattice affected).

- Hot print. Follow cold print test procedure with the following exceptions:
  1. Weight is 0.5 LB
  2. Temperature is 110 degrees F

- Ultra violet light resistance. One solid wood panel in each finish color, finished in the same way as in production, shall be tested. Allow panels to age for a minimum of ten days at 25° C (± 3° C) and 35 to 75% R.H. Perform exposure test at the same ambient conditions. Mask off one half of panel with aluminum foil or cut off a control portion of sample to be used later for comparison with the exposed portion. Place test panel 150 mm from ultraviolet lights (two 48 inch, UV 351 fluorescent lamps) for 72 hours. After exposure, remove and compare exposed and unexposed sections for discoloration, fading, loss of gloss, film embrittlement, cracking or any other failures. There shall be no more than a very slight change between the tested panel and the control panel after testing.
  UVA-351 fluorescent lamps are available from Q-Panel Co., Cleveland, OH.

- Toughness and adhesion. Perform test for toughness and adhesion on a sample panel finished in the same manner as the furniture using Organic Coating Adhesion Tester, Model No, 1001 in accordance with manufacturer's instructions. Mar the panel both parallel and perpendicular to the grain. Film must conform to resulting indentation. Whitening (film separation) or cracking is not acceptable.
  Organic Coating Adhesion Tester Model No. 1001 is available from U.S. Testing Company, Inc. Instrument Marking Division, 1415 Park Avenue, Hoboken, NJ 07030.

- Plasticizer migration. Perform test on a sample panel finished in the same way as production pieces according to ASTM D 2199 - 82, Standard Method for Measurement of Plasticizer Migration From Vinyl Fabrics to Lacquers.

4.4.3 Tests for occasional tables. Test at least one item of each Type in accordance with the following sections of ANSI X5.5-1998 Desk Products - Tests at time of First Article Inspection. All references to "drawers" do not apply.

Section 4	Horizontal Surface Static Load Test.
	Test as a dedicated surface.
Section 5	Top Load Ease Test-Cyclic. A 100 LB load shall be used.
Section 10	Racking Test.
Section 11	Drop Test.
Section 12	Leg Strength Test.
	Reduce 100 lbf to 50 lbf.
	Reduce 50 lbf to 25 lbf.
Section 13	Stability Test.

5. PACKAGING, PACKING, MARKING

Package, pack and mark shipping containers in accordance with the contract or order.

6. NOTES

6.1 Intended use. Traditional classic occasional tables are designed for use in executive offices, courtrooms, libraries, and conference rooms of Federal agencies. The tables should compliment the decor of executive areas when used with other furniture items within this group.

6.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

(a) Title, number, and date of this purchase description.
(b) Type and style (see 1.2.1).
(c) Color required (see 3.2.1, 3.2.2, 3.2.3).
(d) Specify if KD option is desired

6.3 SI - English unit equivalents.

1 m^2 (square meter) = 1.19617 $yard^2$
1 kg/m^3(kilogram/cubic meter) = 0.06242 lb.(mass)/ft^3
1 mm(millimeter) = 0.03937 inch (thickness of one dime)
1 m(meter) = 1 000 mm = 1.0936 yard (39.37 in)
1 N(Newton) = 0.225 lb. (force)
1 kg(kilogram) = 2.2 lb.(mass)
1 g(gram) = 0.0022 lb. (mass)
1 g(gram) = 0.03527 oz.(mass avoirdupois)
1 kPa(kilo Pascal) = 0.14514 lb.(force)/in^2(PSI)
(C^o x 9/5) + 32 (Celsius) = F^o (Fahrenheit)
1 g/m^2(gram per square meter) = 0.02949 oz/yd^2 or 0.04426 oz/linear yard (54" W basis)

To convert SI units to English units, multiply SI measurement by the appropriate English conversion factor listed above. See example below:

900 mm X 0.03937 in./mm = 35.43 inches

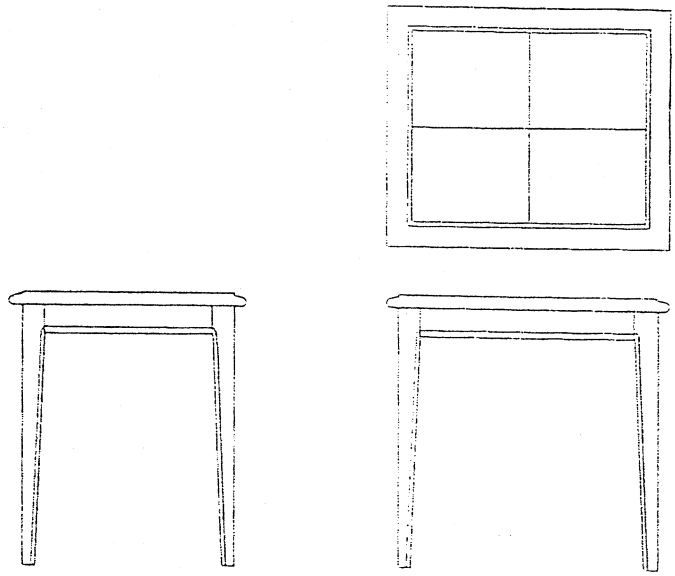
To convert Celsius temperature to Fahrenheit temperature use the above conversion equation. See example below:

(20^{o}C X 1.8) + 32 = 68^{o}F

6.4 Known sources of supply.

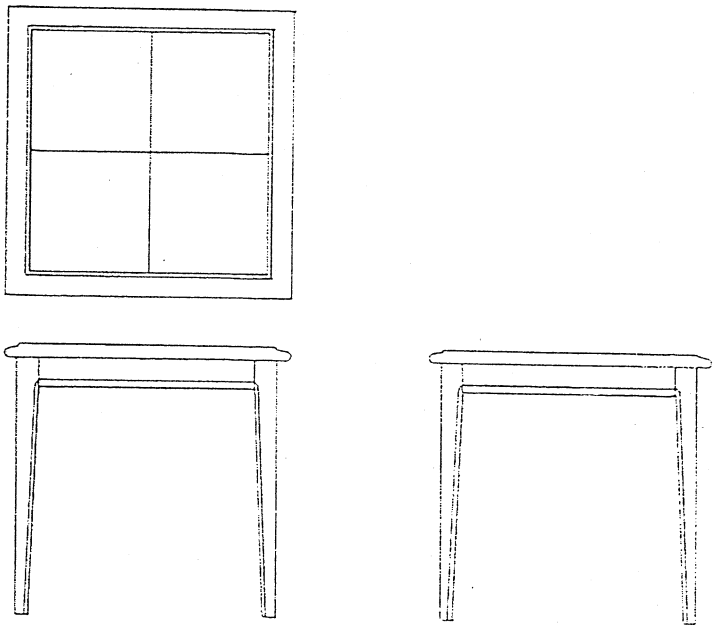
Drawings of each item are incorporated by reference into this purchase description and are available from the contract specialist.

Figure 1 - Type I
End Table



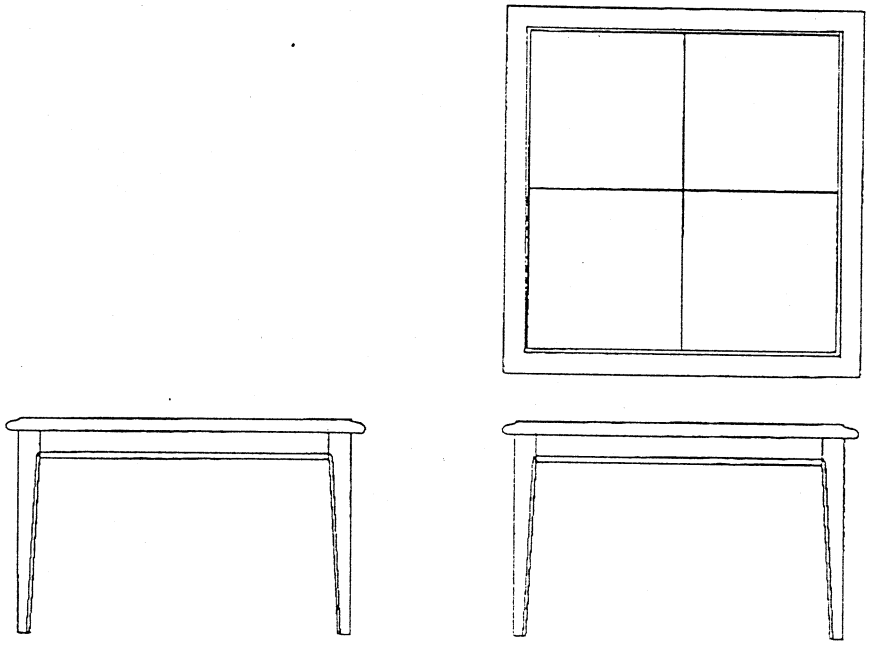
Overall Width	Overall Height	Overall Depth
518 mm	610 mm	584 mm

Figure 2 - Type II
Corner Table



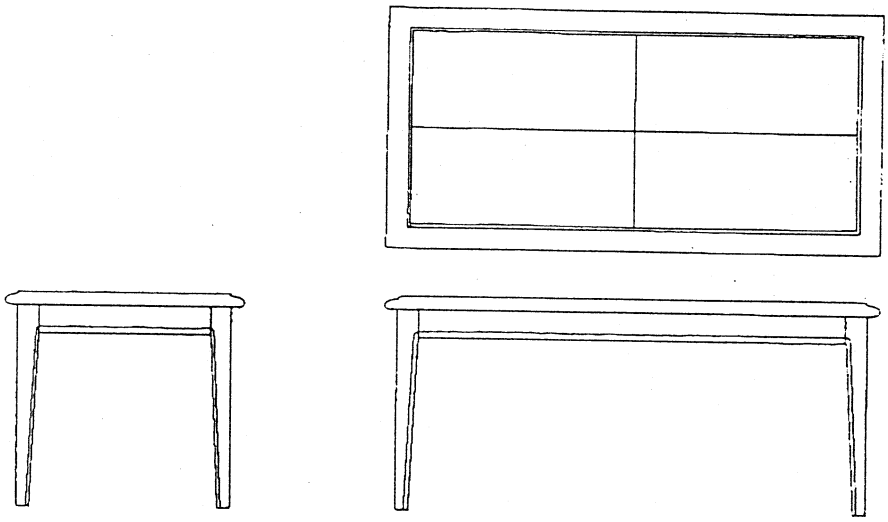
Overall Width	Overall Height	Overall Depth
610 mm	610 mm	584 mm

Figure 3 - Type III
Coffee Table



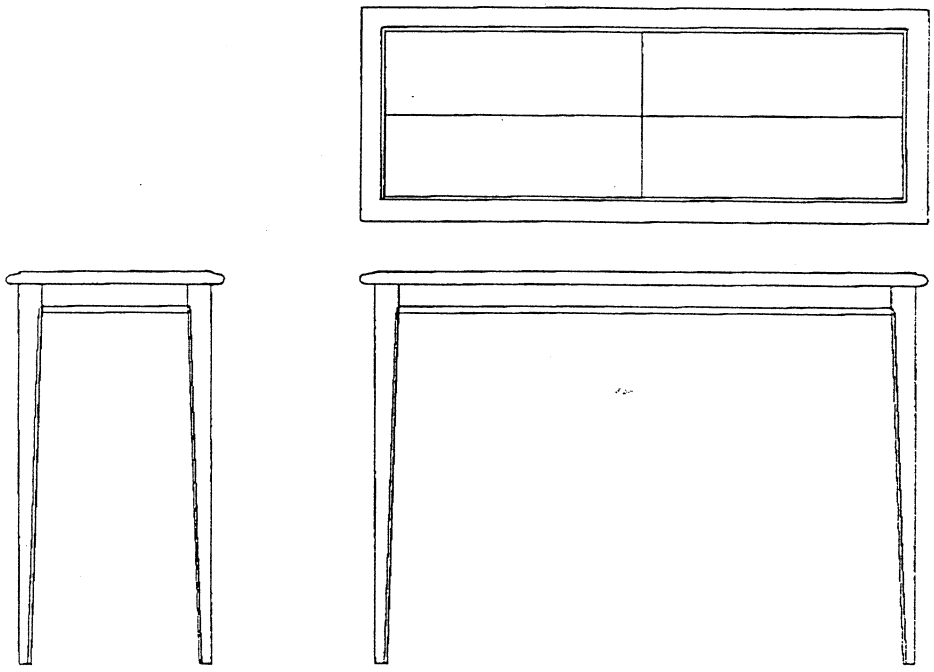
Overall Width	Overall Height	Overall Depth
762 mm	518 mm	457mm

Figure 4 - Type IV
Coffee Table



Overall Width	Overall Height	Overall Depth
1067 mm	518 mm	457 mm

Figure 5 - Type V
Sofa Table



Overall Width	Overall Height	Overall Depth
1219 mm	457 mm	762 mm